immediately noticed that there was a slight flattening of the limb of *Venus*. The dark limb of the Moon came on so fast that it was believed that the contact had been seen from its very commencement, but the time may possibly have been a little late. As the count had only just been commenced, there was no possibility of any error having been made in counting the beats.

(*d*) The last contact was observed at the thirty-first beat after $1^h\ 38^m\ 0^s{\cdot}0$ by the chronometer. The chronometer beats five beats to 2^s; resulting chronometer time is therefore $1^h\ 38^m\ 12^s{\cdot}4$. The chronometer was referred to before $1^h\ 38^m\ 16^s{\cdot}0$ after the disappearance of the last vestige of the planet. Image of planet at moment of occultation, steady; dark limb of Moon sharp and straight. M.

The clear aperture of the object-glass of the S.E. Equatorial is $12\frac{3}{4}$ inches, of the Simms Equatorial 6 inches.

The initials W.C. and M. are those of Mr. Christie and Mr. Maunder.

Royal Observatory, Greenwich:
1884, *March* 14.

Occultations Observed at Forest Lodge, Maresfield.
By Captain William Noble.

Occultation of Venus, 1884, *February* 29.

Clouds were driving across the sky up to the instant of disappearance, which phenomenon was not observed. At reappearance, however, the first glimpse of the planet's limb was caught at $2^h\ 53^m\ 48^s$ local sidereal time $= 4^h\ 18^m\ 15^s{\cdot}0$ local mean time, the gibbous limb of *Venus* separating sharply from that of the Moon at $2^h\ 54^m\ 9^s$ L. S. T. $= 4^h\ 18^m\ 36^s{\cdot}5$ L. M. T. This last determination may be regarded as one of considerable accuracy.

By some curious and inexplicable omission, no mention whatever of this interesting and important phenomenon is to be found in the *Nautical Almanac*.

Occultation of λ *Geminorum*, 1884, *March* 6.

The star disappeared instantaneously at the Moon's dark limb at $9^h\ 10^m\ 15^s{\cdot}4$ L. S. T. $= 10^h\ 10^m\ 5^s{\cdot}7$ L. M. T., and reappeared at the bright limb of the Moon at (very approximately) $10^h\ 12^m\ 30^s{\cdot}1$ L. S. T. $= 11^h\ 12^m\ 10^s{\cdot}2$ L. M. T.

Occultation of κ *Cancri*, 1884, *March* 8.

The star disappeared instantaneously at the Moon's dark limb at $9^h\ 27^m\ 10^s{\cdot}4$ L. S. T. $= 10^h\ 19^m\ 6^s{\cdot}1$ L. M. T. The reappearance was not observed.

In each case a power of 154 was employed on my 4·2-inch

Ross Equatoreal. From the times given above, 17·8 seconds must be subtracted to obtain the corresponding times at Greenwich, that being the longitude of my Observatory East. Its latitude is 51° 0′ 56″·3 North.

Forest Lodge, Maresfield, Uckfield:
1884, *March* 12.

NOTE.—The Superintendent of the *Nautical Almanac* has informed the President that the calculation of the occultation of *Venus* for Greenwich was made in the usual course. It happened to be upon a form by itself, and was accidentally overlooked in making up the copy of occultations visible at Greenwich for the press. The omission subsequently escaped detection.

Note on the Transit of the IVth Satellite of Jupiter, 1884, *March* 12. By Edmund J. Spitta.

Whilst looking at *Jupiter* on March 12 at 9 P.M. I observed what I took to be a very well-defined shadow. On referring to the *Nautical Almanac* I found it was the IVth satellite itself —pitch black, transiting the disc of its primary, having accomplished about one-third of its course.

I left the telescope, and returning at 11 P.M. again saw the satellite—now more than half way across—as well defined and *black* as before. I note this because I believe it unusual for satellite IV to appear *black*, the colour more often being chocolate or brown. The spot seemed lifted off the planet.

At 11.45, as the time of egress was approaching, the satellite began to lose both its colour and definition; whilst at 11·50 it was still less apparent, being hardly visible five minutes later. I now fancied in the next few seconds I saw the satellite illuminated on the disc, but as the air at the moment was very unsteady I cannot be certain. At 12 o'clock, during a wave of magnificent definition, to my surprise I distinctly re-saw the satellite, almost as black as before, *quite close to the limb*, which I believe in this situation is very unusual. During the next seven minutes it was entirely lost to view, but at 12.7, one minute before the egress, it burst into unmistakable brilliancy.

I did not observe the ingress, but I am informed by one who did, that it was bright until lost in the dazzling splendour of the planet.

Ivy House, Clapham Common:
1884, *March* 13.
